

Amendments to the claims:

Claims 20 - 27 cancel

Please add the following new claims:

28.(new) A method for operating an exhaust-gas cleaning unit of a diesel engine including a particle filter and a nitrogen oxide storage device arranged upstream of the particle filter, wherein, in phases, sulfur regeneration of the nitrogen oxide storage device is performed periodically at raised exhaust gas temperatures and, at least in certain phases, with a rich exhaust gas composition, and soot regeneration of the particle filter is performed, for certain phases, at raised exhaust gas temperatures with a lean exhaust gas composition, the method comprising the steps of:

performing at least some of the sulfur regeneration and the soot regeneration phases in the form of a combined soot and sulfur regeneration phase, and providing, during the combined sulfur and soot regeneration phase, for the sulfur regeneration, at least temporarily, a rich exhaust-gas composition with a temperature higher than the temperature of the lean exhaust gas composition which is provided for the soot regeneration of the particle filter.

29. (new) The method according to claim 28, wherein, during an extended soot regeneration phase of the particle filter, intermittently several short sulfur regeneration phases are provided for the sulfur regeneration of the nitrogen oxide storage device.

30. (new) The method according to claim 28, wherein, during an extended sulfur regeneration phase, intermittently, sev-

eral short soot regeneration phase periods are provided for the soot regeneration of the particle filter.

31. (new) The method according to claim 28, wherein a soot regeneration phase is performed immediately followed by a sulfur regeneration phase.

32. (new) The method according to claim 28, wherein a sulfur regeneration phase is performed immediately followed by soot regeneration phase.

33. (new) The method according to claim 28, wherein, intermittently, the nitrogen oxide storage device is regenerated just for the removal of the nitrogen oxides by an exhaust gas having, at least for a predetermined time, a rich composition and the procedure is performed for shorter periods and at lower exhaust gas temperatures than are employed for the sulfur regeneration.

34. (new) The method according to claim 33, wherein, with a lambda sensor arranged downstream of the particle filter, the exhaust gas composition is monitored during the nitrogen oxide regeneration phases for an appearance of a reduction medium concentration increase (carbon concentration) indicating a completion of the soot regeneration procedure.

35. (new) The method according to claim 28, wherein, during a soot regeneration phase of the particle filter, the soot removal is enhanced by at least one of: operating the diesel engine so as to increase the nitrogen oxide emissions of the diesel engine and providing to the particle filter nitrogen dioxide released from the nitrogen oxide storage device.

36. (new) The method according to claim 28, wherein, during a particle filter soot regeneration phase, an exhaust gas recirculation of the diesel engine is deactivated.

37. (new) The method according to claim 28, wherein, for increasing the exhaust gas temperature, fuel introduced into the exhaust gas is oxidized in an oxidation catalytic converter arranged upstream of the nitrogen oxide storage device.

38 (new) The method according to claim 37, wherein the fuel is introduced into the exhaust gas by a fuel post injection into the diesel engine.

39. (new) The method according to claim 28, wherein a particle filter is used which has a coating designed to perform at least one of an oxidation catalytic converter function, an HC/CO/O₂ storage function and a soot oxidation enhancement function.